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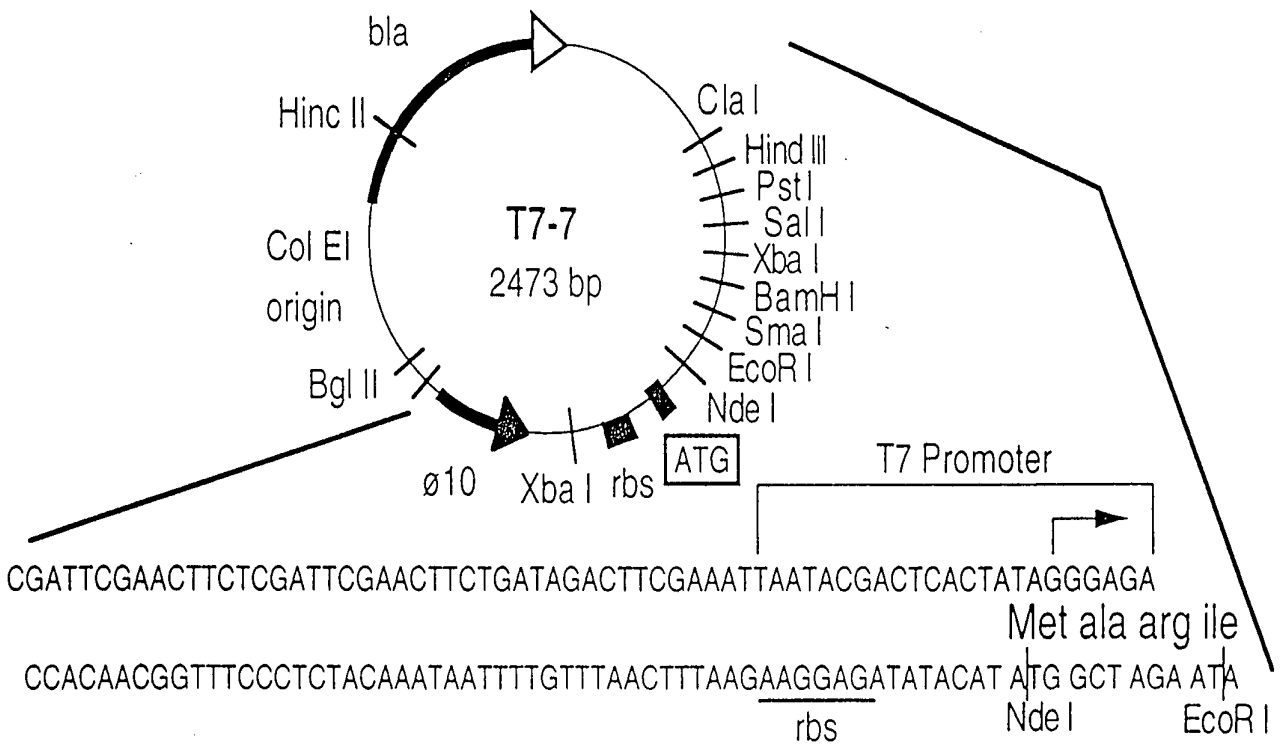

FIG.5B.

FIG.8A

1 ATGAACAAGA TATATCGTCT CAAATTCAGC AAACGCCTGA ATGCTTTGGT
TGCTGTGTCT GAATTGACAC GGGGTTGTGA CCATTCCACA GAAAAAGGCA
101 GTGAAAAACC TGTTCGTACG AAAGTACGCC ACTTGGCGTT AAAGCCACTT
TCCGCTATAT TGCTATCTTT GGGCATGGCA TCCATTCCGC AATCTGTTTT
201 AGCGAGCGGT TTACAGGGAA TGAGCGTCGT ACACGGTACA GCAACCATGC
AAGTAGACGG CAATAAAACC ACTATCCGTA ATAGCGTCAA TGCTATCATC
301 AATTGGAAAC AATTTAACAT TGACCAAAAT GAAATGGTGC AGTTTTTACA
AGAAAGCAGC AACTCTGCCG TTTTCAACCG TGTTACATCT GACCAAATCT
401 CCCAATTAAA AGGGATTTTA GATTCTAACG GACAAGTCTT TTTAATCAAC
CCAAATGGTA TCACAATAGG TAAAGACGCA ATTATTAACA CTAATGGCTT
501 TACTGCTTCT ACGCTAGACA TTTCTAACGA AAACATCAAG GCGCGTAATT
TCACCCTTGA GCAAACCAAG GATAAAGCAC TCGCTGAAAT CGTGAATCAC
601 GGTTTAATTA CCGTTGGTAA AGACGGTAGC GTAAACCTTA TTGGTGGCAA
AGTGAAAAAC GAGGGCGTGA TTAGCGTAAA TGGCGGTAGT ATTTCTTTAC
701 TTGCAGGGCA AAAAATCACC ATCAGCGATA TAATAAATCC AACCATCACT
TACAGCATTG CTGCACCTGA AAACGAAGCG ATCAATCTGG GCGATATTTT

FIG 8B

801 TGCCAAAGGT GGTAACATTA ATGTCCGCGC TGCCACTATT CGCAATAAAG
GTAAACTTTC TGCCGACTCT GTAAGCAAAG ATAAAAGTGG TAACATTGTT

901 CTCTCTGCCA AAGAAGGTGA AGCGGAAATT GGCGGTGTAA TTTCCGCTCA
AAATCAGCAA GCCAAAGGTG GTAAGTTGAT GATTACAGGC GATAAAGTTA

1001 CATTGAAAAC GGGTGCAGTT ATCGACCTTT CGGGTAAAGA AGGGGGAGAA
ACTTATCTTG GCGGTGACGA GCGTGGCGAA GGTAAAAACG GCATTCAATT

1101 AGCAAAGAAA ACCACTTTAG AAAAAGGCTC AACAATTAAT GTGTCAGGTA
AAGAAAAAGG TGGGCGCGCT ATTGTATGGG GCGATATTGC GTTAATTGAC

1201 GGCAATATTA ATGCCCAAGG TAAAGATATC GCTAAAACTG GTGGTTTTGT
GGAGACGTCG GGGCATTACT TATCCATTGA TGATAACGCA ATTGTTAAAA

1301 CAAAAGAATG GCTACTAGAC CCAGAGAATG TGACTATTGA AGCTCCTTCC
GCTTCTCGCG TCGAGCTGGG TGCCGATAGG AATTCCCACT CGGCAGAGGT

1401 GATAAAAGTG ACCCTAAAAA AAAATAACAC CTCCTTGACA ACACTAACCA
ATACAACCAT TTCAAATCTT CTGAAAAGTG CCCACGTGGT GAACATAACG

1501 GCAAGGAGAA AACTTACCGT TAATAGCTCT ATCAGTATAG AAAGAGGCTC
CCACTTAATT CTCCACAGTG AAGGTCAGGG CGGTCAAGGT GTTCAGATTG

FIG.8C

1601 ATAAAGATAT TACTTCTGAA GGCGGAAATT TAACCATTTA TTCTGGCGGA
TGGGTTGATG TTCATAAAAA TATTACGCTT GGTAGCGGCT TTTTAAACAT

1701 CACAACTAAA GAAGGAGATA TCGCCTTCGA AGACAAGTCT GGACGGAACA
ACCTAACCAT TACAGCCCAA GGGACCATCA CCTCAGGTAA TAGTAACGGC

1801 TTTAGATTTA ACAACGTCTC TCTAAACAGC CTTGGCGGAA AGCTGAGCTT
TACTGACAGC AGAGAGGACA GAGGTAGAAG AACTAAGGGT AATATCTCAA

1901 ACAAATTTGA CGGAACGTTA AACATTTCCG GAACTGTAGA TATCTCAATG
AAAGCACCCA AGTCAGCTG GTTTTACAGA GACAAAGGAC GCACCTACTG

2001 GAACGTAACC ACTTTAAATG TTACCTCGGG TAGTAAATTT AACCTCTCCA
TTGACAGCAC AGGAAGTGGC TCAACAGGTC CAAGCATACG CAATGCAGAA

2101 TTAAATGGCA TAACATTTAA TAAAGCCACT TTTAATATCG CACAAGGCTC
AACAGCTAAC TTTAGCATCA AGGCATCAAT AATGCCCTTT AAGAGTAACG

2201 CTAACTACGC ATTATTTAAT GAAGATATTT CAGTCTCAGG GGGGGGTAGC
CTTAATTTCA AACTTAACGC CTCATCTAGC AACATACAAA CCCCTGGCGT

2301 AATTATAAAA TCTCAAAACT TTAATGTCTC AGGAGGGTCA ACTTTAAATC
TCAAGGCTGA AGGTTCAACA GAAACCGCTT TTTCAATAGA AAATGATTTA

FIG.8D

2401 AACTTAAACG CCACCGGTGG CAATATAACA ATCAGACAAG TCGAGGGTAC
CGATTCACGC GTCAACAAAG GTGTCGCAGC CAAAAAAAAC ATAACTTTTA

2501 AAGGGGGTAA TATCACCTTC GGCTCTCAAA AAGCCACAAC AGAAATCAAA
GGCAATGTTA CCATCAATAA AAACACTAAC GCTACTCTTT GTGGTGCGAA

2601 TTTTGCCGAA AACAAATCGC CTTTAAATAT AGCAGGAAAT GTTATTAATA
ATGGCAACCT TACCACTGCC GGCTCCATTA TCAATATAGC CGGAAATCTT

2701 ACTGTTTCAA AAGGCGCTAA CCTTCAAGCT ATAACAAATT ACACTTTTAA
TGTAGCCGGC TCATTTGACA ACAATGGCGC TTCAAACATT TCCATTGCCA

2801 GAGGAGGGGC TAAATTTAAA GATATCAATA ACACCAGTAG CTTAAATATT
ACCACCAACT CTGATACCAC TTACCGCACC ATTATAAAAG GCAATATATC

2901 CAACAAATCA GGTGATTTGA ATATTATTGA TAAAAAAAGC GACGCTGAAA
TCCAAATTGG CGGCAATATC TCACAAAAAG AAGGCAATCT CACAATTTCT

3001 TCTGATAAAG TAAATATTAC CAATCAGATA ACAATCAAAG CAGGCGTTGA
AGGGGGGCGT TCTGATTCAA GTGAGGCAGA AAATGCTAAC CTAACTATTC

3101 AAACCAAAGA GTTAAAATTG GCAGGAGACC TAAATATTTC AGGCTTTAAT
AAAGCAGAAA TTACAGCTAA AAATGGCAGT GATTTAACTA TTGGCAATGC

FIG.8E

3201 TAGCGGTGGT AATGCTGATG CTAAAAAAGT GACTTTTGAC AAGGTTAAAG
ATTCAAAAAT CTCGACTGAC GGTCACAATG TAACACTAAA TAGCGAAGTG

3301 AAAACGTCTA ATGGTAGTAG CAATGCTGGT AATGATAACA GCACCGGTTT
AACCATTTCC GCAAAAGATG TAACGGTAAA CAATAACGTT ACCTCCCACA

3401 AGACAATAAA TATCTCTGCC GCAGCAGGAA ATGTAACAAC CAAAGAAGGC
ACAACTATCA ATGCAACCAC AGGCAGCGTG GAAGTAACTG CTCAAAATGG

3501 TACAATTAAA GGCAACATTA CCTCGCAAAA TGTAACAGTG ACAGCAACAG
AAAATCTTGT TACCACAGAG AATGCTGTCA TTAATGCAAC CAGCGGCACA

3601 GTAAACATTA GTACAAAAAC AGGGGATATT AAAGGTGGAA TTGAATCAAC
TTCCGGTAAT GTAAATATTA CAGCGAGCGG CAATACACTT AAGGTAAGTA

3701 ATATCACTGG TCAAGATGTA ACAGTAACAG CGGATGCAGG AGCCTTGACA
ACTACAGCAG GCTCAACCAT TAGTGCGACA ACAGGCAATG CAAATATTAC

3801 AACCAAAACA GGTGATATCA ACGGTAAAGT TGAATCCAGC TCCGGCTCTG
TAACACTTGT TGCAACTGGA GCAACTCTTG CTGTAGGTAA TATTTCAGGT

3901 AACACTGTTA CTATTACTGC GGATAGCGGT AAATTAACCT CCACAGTAGG
TTCTACAATT AATGGGACTA ATAGTGTAAC CACCTCAAGC CAATCAGGCG

FIG.8F

4001 ATATTGAAGG TACAATTTCT GGTAATACAG TAAATGTTAC AGCAAGCACT
GGTGATTTAA CTATTGGAAA TAGTGCAAAA GTTGAAGCGA AAAATGGAGC

4101 TGCAACCTTA ACTGCTGAAT CAGGCAAATT AACCACCCAA ACAGGCTCTA
GCATTACCTC AAGCAATGGT CAGACAACTC TTACAGCCAA GGATAGCAGT

4201 ATCGCAGGAA ACATTAATGC TGCTAATGTG ACGTTAAATA CCACAGGCAC
TTTAACTACT ACAGGGGATT CAAAGATTAA CGCAACCAGT GGTACCTTAA

4301 CAATCAATGC AAAAGATGCC AAATTAGATG GTGCTGCATC AGGTGACCGC
ACAGTAGTAA ATGCAACTAA CGCAAGTGGC TCTGGTAACG TGACTGCGAA

4401 AACCTCAAGC AGCGTGAATA TCACCGGGGA TTTAAACACA ATAAATGGGT
TAAATATCAT TTCGGAAAAT GGTAGAAACA CTGTGCGCTT AAGAGGCAAG

4501 GAAATTGATG TGAAATATAT CCAACCAGGT GTAGCAAGCG TAGAAGAGGT
AATTGAAGCG AAACGCGTCC TTGAGAAGGT AAAAGATTTA TCTGATGAAG

4601 AAAGAGAAAC ACTAGCCAAA CTTGGTGTAA GTGCTGTACG TTTCGTTGAG
CCAAATAATG CCATTACGGT TAATACACAA AACGAGTTTA CAACCAAACC

4701 ATCAAGTCAA GTGACAATTT CTGAAGGTAA GGCGTGTTTC TCAAGTGGTA
ATGGCGCACG AGTATGTACC AATGTTGCTG ACGATGGACA GCAG

FIG.9A

1 ATGAACAAGA TATATCGTCT CAAATTCAGC AAACGCCTGA ATGCTTTGGT
TGCTGTGTCT GAATTGACAC GGGGTTGTGA CCATTCCACA GAAAAAGGCA
101 GTGAAAAACC TGTTCGTACG AAAGTACGCC ACTTGGCGTT AAAGCCACTT
TCCGCTATAT TGCTATCTTT GGGCATGGCA TCCATTCCGC AATCTGTTTT
201 AGCGAGCGGT TTACAGGGAA TGAGCGTCGT ACACGGTACA GCAACCATGC
AAGTAGACGG CAATAAAACC ACTATCCGTA ATAGCGTCAA TGCTATCATC
301 AATTGGAAAC AATTTAACAT TGACCAAAAT GAAATGGTGC AGTTTTTACA
AGAAAGCAGC AACTCTGCCG TTTTCAACCG TGTTACATCT GACCAAAATCT
401 CCCAATTAAA AGGGATTTTA GATTCTAACG GACAAGTCTT TTTAATCAAC
CCAAATGGTA TCACAATAGG TAAAGACGCA ATTATTAACA CTAATGGCTT
501 TACTGCTTCT ACGCTAGACA TTTCTAACGA AAACATCAAG GCGCGTAATT
TCACCCTTGA GCAAACCAAG GATAAAGCAC TCGCTGAAAT CGTGAATCAC
601 GGTTTAATTA CCGTTGGTAA AGACGGTAGC GTAAACCTTA TTGGTGGCAA
AGTGAAAAAC GAGGGCGTGA TTAGCGTAAA TGGCGGTAGT ATTTCTTTAC
701 TTGCAGGGCA AAAAATCACC ATCAGCGATA TAATAAATCC AACCATCACT
TACAGCATTG CTGCACCTGA AAACGAAGCG ATCAATCTGG GCGATATTTT

FIG.9B

801 TGCCAAAGGT GGTAACATTA ATGTCCGCGC TGCCACTATT CGCAATAAAG
GTAAACTTTC TGCCGACTCT GTAAGCAAAG ATAAAAGTGG TAACATTGTT

901 CTCTCTGCCA AAGAAGGTGA AGCGGAAATT GGCGGTGTAA TTTCCGCTCA
AAATCAGCAA GCCAAAGGTG GTAAGTTGAT GATTACAGGT GATAAAGTCA

1001 CATTAAAAAC AGGTGCAGTT ATCGACCTTT CAGGTAAAGA AGGGGGAGAG
ACTTATCTTG GCGGTGATGA GCGTGGCGAA GGTAAAAATG GTATTCAATT

1101 AGCGAAGAAA ACCTCTTTAG AAAAAGGCTC GACAATTAAT GTATCAGGCA
AAGAAAAAGG CGGGCGCGCT ATTGTATGGG GCGATATTGC ATTAATTAAT

1201 GGTAACATTA ATGCTCAAGG TAGCGATATT GCTAAAACTG GCGGCTTTGT
GGAAACATCA GGACATGACT TATCCATTGG TGATGATGTG ATTGTTGACG

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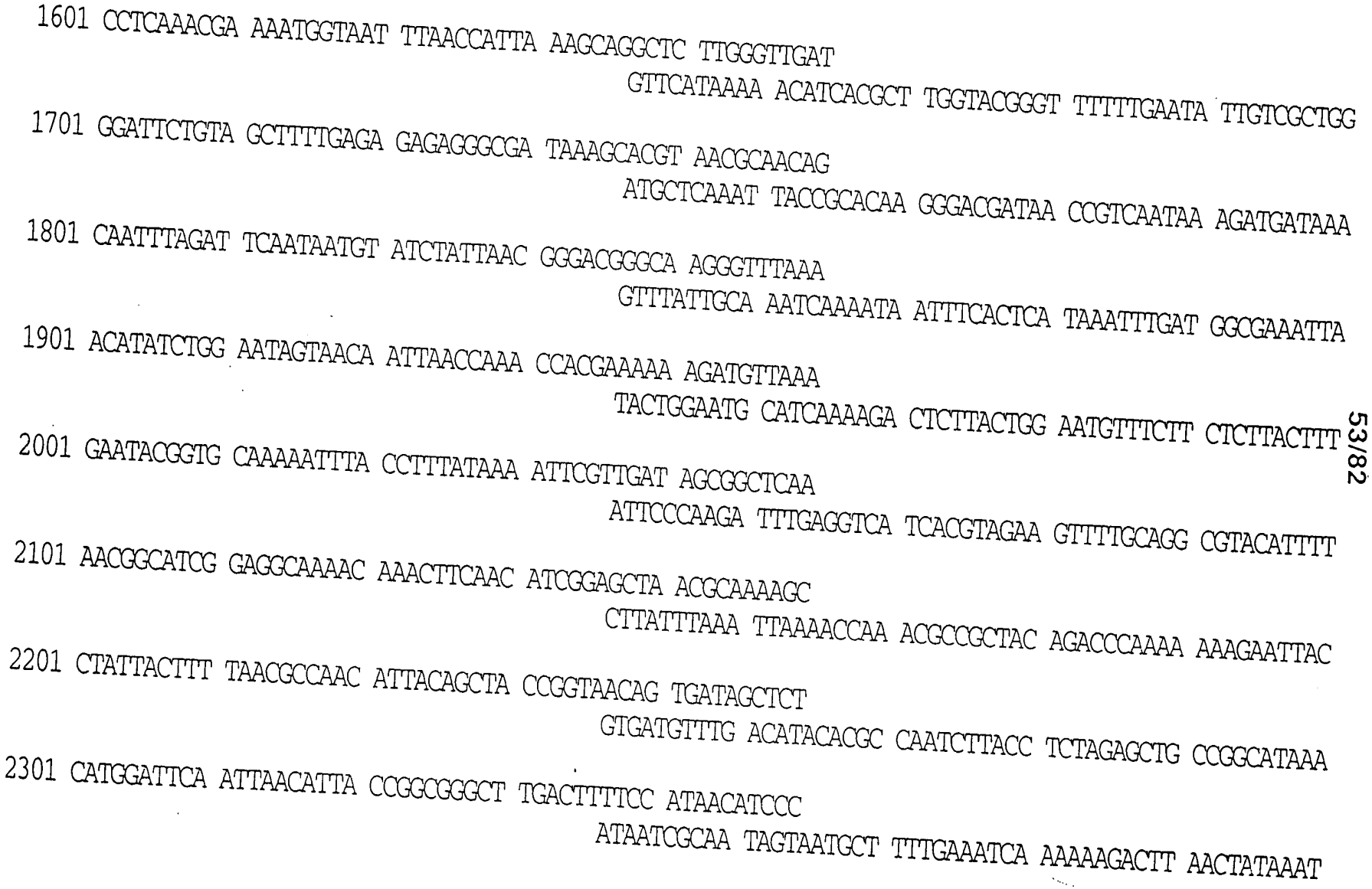
1401 GACTAAAGAG TCACCTAAAG GTAATAGTAT TTCTAAACCT ACATTAACAA
ACTCAACTCT TGAGCAAATC CTAAGAAGAG GTTCTTATGT TAATATCACT

1501 GCTAATAATA GAATTTATGT TAATAGCTCC ATCAACTTAT CTAATGGCAG
TTTAACACTT CACACTAAAC GAGATGGAGT TAAAATTAAC GGTGATATTA

FIG.9C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1901 ACATATCTGG AATAGTAACA ATTAACCAAA CCACGAAAAA AGATGTTAAA
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2001 GAATACGGTG CAAAAATTTA CCTTTATAAA ATTCGTTGAT AGCGGCTCAA
ATTCCCAAGA TTTGAGGTCA TCACGTAGAA GTTTTGCAGG CGTACATTTT
2101 AACGGCATCG GAGGCAAAAC AAACTTCAAC ATCGGAGCTA ACGCAAAAGC
CTTATTTAAA TTAAAACCAA ACGCCGCTAC AGACCCAAAA AAAGAATTAC
2201 CTATTACTTT TAACGCCAAC ATTACAGCTA CCGGTAACAG TGATAGCTCT
GTGATGTTTG ACATACACGC CAATCTTACC TCTAGAGCTG CCGGCATAAA
2301 CATGGATTCA ATTAACATTA CCGGCGGGCT TGACTTTTCC ATAACATCCC
ATAATCGCAA TAGTAATGCT TTTGAAATCA AAAAAGACTT AACTATAAAT

FIG.9D

2401 GCAACTGGCT CGAATTTTAG TCTTAAGCAA ACGAAAGATT CTTTTTATAA
TGAATACAGC AAACACGCCA TTAACTCAAG TCATAATCTA ACCATTCTTG

2501 GCGGCAATGT CACTCTAGGT GGGGAAAATT CAAGCAGTAG CATTACGGGC
AATATCAATA TCACCAATAA AGCAAATGTT ACATTACAAG CTGACACCAG

2601 CAACAGCAAC ACAGGCTTGA AGAAAAGAAC TCTAACTCTT GGCAATATAT
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3101 TAACTATTCA AACCAAAGAG TTAAAATTGG CAGGAGACCT AAATATTTCA
GGCTTTAATA AAGCAGAAAT TACAGCTAAA AATGGCAGTG ATTTAACTAT

3201 TGGCAATGCT AGCGGTGGTA ATGCTGATGC TAAAAAAGTG ACTTTTGACA
AGGTTAAAGA TTCAAAAATC TCGACTGACG GTCACAATGT AACACTAAAT

FIG.9E

3301 AGCGAAGTGA AAACGTCTAA TGGTAGTAGC AATGCTGGTA ATGATAACAG
CACCGGTTTA ACCATTTCCG CAAAAGATGT AACGGTAAAC AATAACGTTA

3401 CCTCCCACAA GACAATAAAT ATCTCTGCCG CAGCAGGAAA TGTAACAACC
AAAGAAGGCA CAACTATCAA TGCAACCACA GGCAGCGTGG AAGTAACTGC

3501 TCAAAATGGT ACAATTAAAG GCAACATTAC CTCGCAAAAT GTAACAGTGA
CAGCAACAGA AAATCTTGTT ACCACAGAGA ATGCTGTCAT TAATGCAACC

3601 AGCGGCACAG TAAACATTAG TACAAAAACA GGGGATATTA AAGGTGGAAT
TGAATCAACT TCCGGTAATG TAAATATTAC AGCGAGCGGC AATACACTTA

3701 AGGTAAGTAA TATCACTGGT CAAGATGTAA CAGTAACAGC GGATGCAGGA
GCCTTGACAA CTACAGCAGG CTCAACCATT AGTGCGACAA CAGGCAATGC

3801 AAATATTACA ACCAAAACAG GTGATATCAA CGGTAAAGTT GAATCCAGCT
CCGGCTCTGT AACACTTGTT GCAACTGGAG CAACTCTTGC TGTAGGTAAT

3901 ATTTCAGGTA ACACTGTTAC TATTACTGCG GATAGCGGTA AATTAACCTC
CACAGTAGGT TCTACAATTA ATGGGACTAA TAGTGTAACC ACCTCAAGCC

4001 AATCAGGCGA TATTGAAGGT ACAATTTCTG GTAATACAGT AAATGTTACA
GCAAGCACTG GTGATTTAAC TATTGGAAAT AGTGCAAAAG TTGAAGCGAA

FIG.9F

4101 AAATGGAGCT GCAACCTTAA CTGCTGAATC AGGCAAATTA ACCACCCAAA
CAGGCTCTAG CATTACCTCA AGCAATGGTC AGACAACTCT TACAGCCAAG

4201 GATAGCAGTA TCGCAGGAAA CATTAATGCT GCTAATGTGA CGTTAAATAC
CACAGGCACT TTAACTACTA CAGGGGATTC AAAGATTAAC GCAACCAGTG

4301 GTACCTTAAC AATCAATGCA AAAGATGCCA AATTAGATGG TGCTGCATCA
GGTGACCGCA CAGTAGTAAA TGCAACTAAC GCAAGTGGCT CTGGTAACGT

4401 GACTGCGAAA ACCTCAAGCA GCGTGAATAT CACCGGGGAT TTAAACACAA
TAAATGGGTT AAATATCATT TCGGAAAATG GTAGAAACAC TGTGCGCTTA

4501 AGAGGCAAGG AAATTGATGT GAAATATATC CAACCAGGTG TAGCAAGCGT
AGAAGAGGTA ATTGAAGCGA AACGCGTCCT TGAGAAGGTA AAAGATTTAT

4601 CTGATGAAGA AAGAGAAACA CTAGCCAAAC TTGGTGTAAG TGCTGTACGT
TTCGTTGAGC CAAATAATGC CATTACGGTT AATACACAAA ACGAGTTTAC

4701 AACCAAACCA TCAAGTCAAG TGACAATTTC TGAAGGTAAG GCGTGTTTCT
CAAGTGGTAA TGGCGCACGA GTATGTACCA ATGTTGCTGA CGATGGACAG

4801 CAG

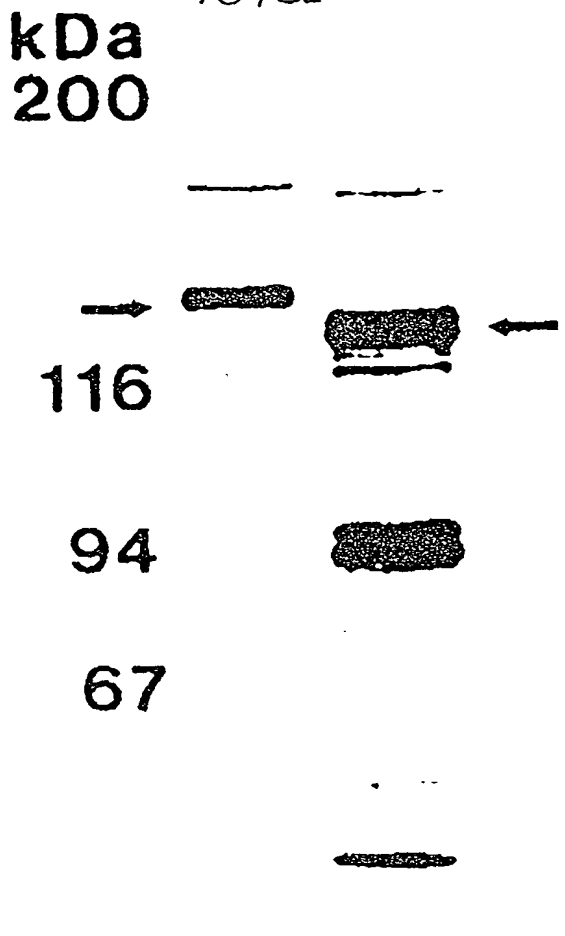

FIG. 11

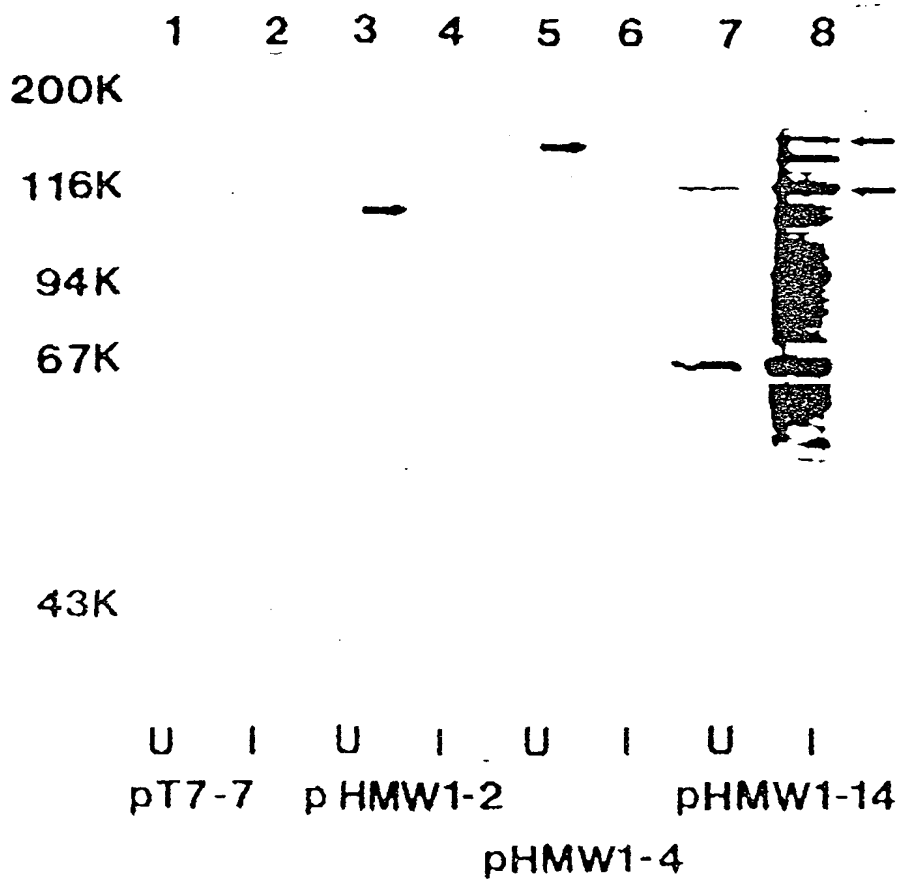
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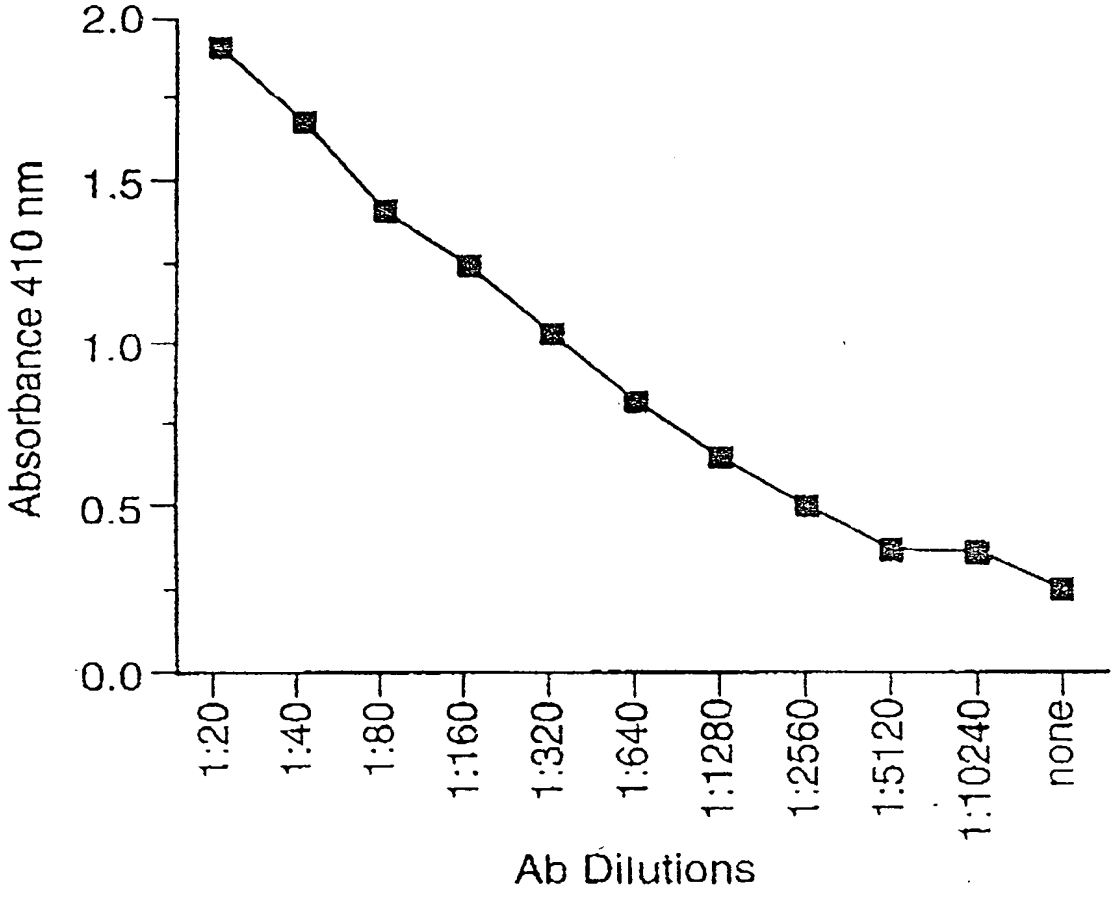
FIG. 12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Ab Dilutions

FIG. 13

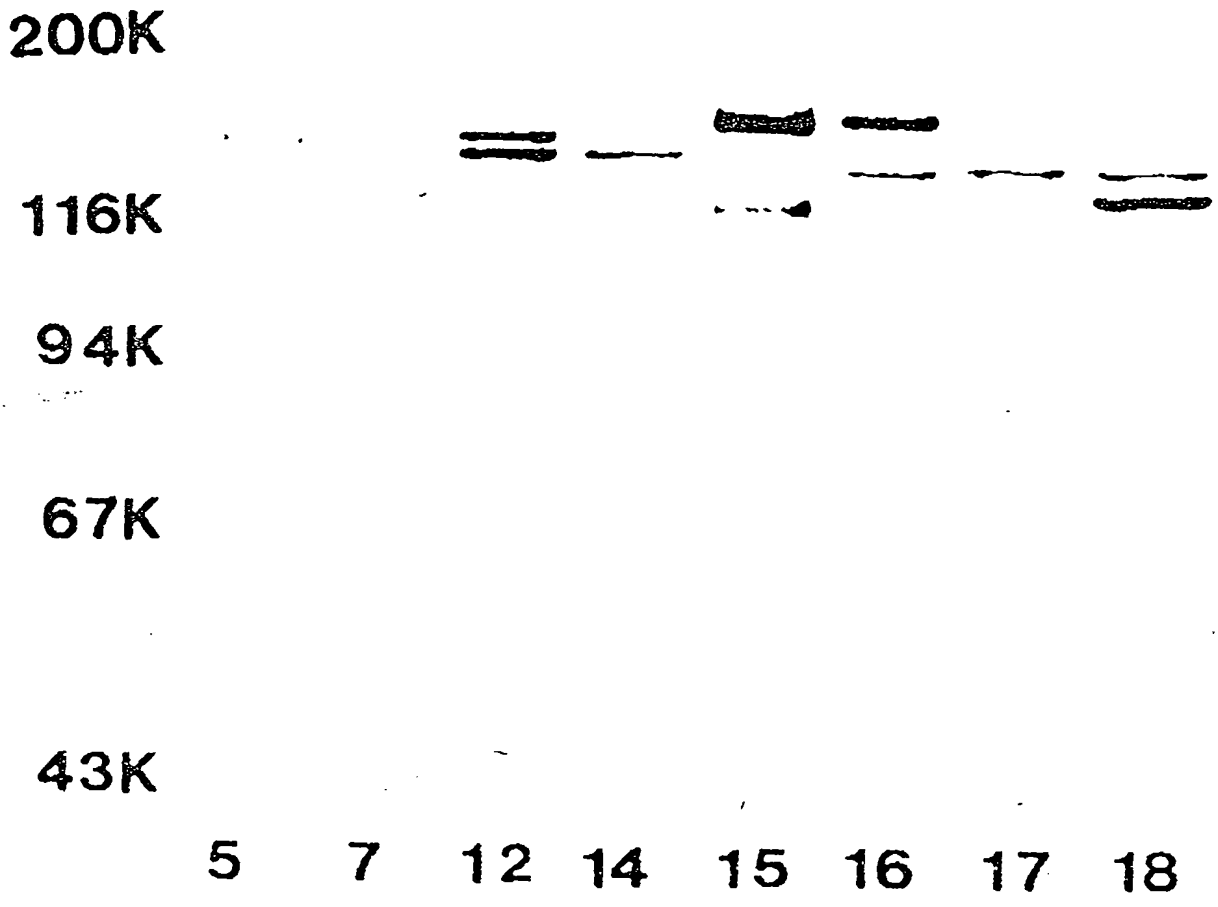

FIG. 14

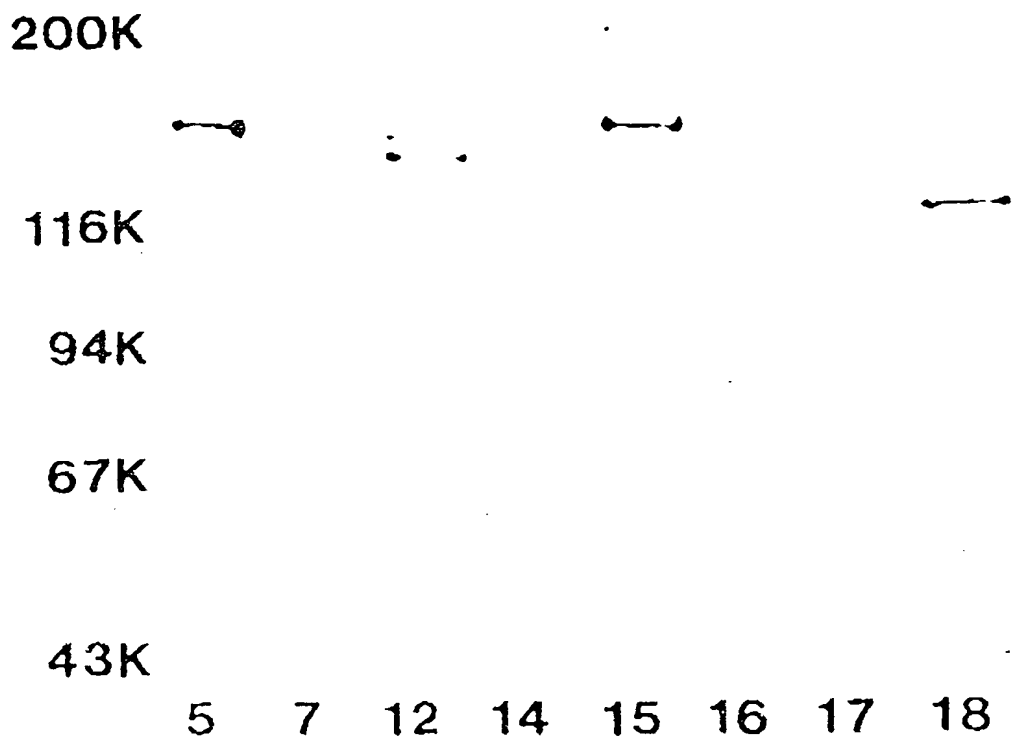

FIG. 15

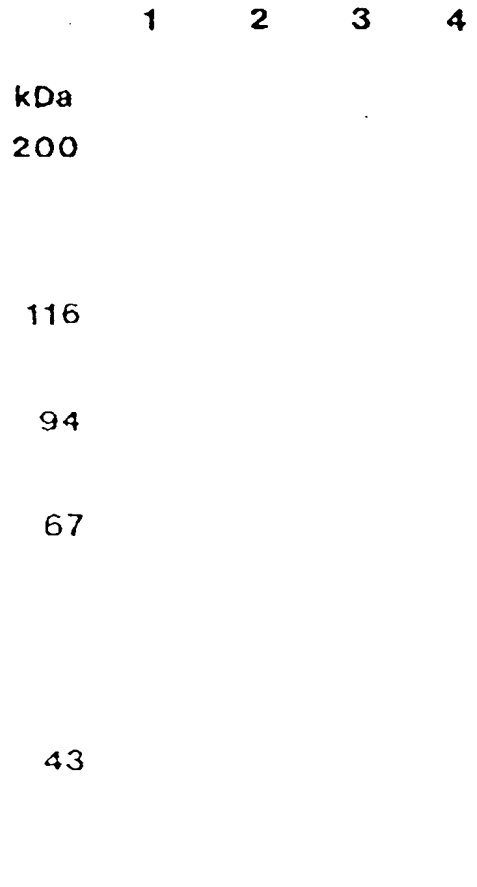

FIG. 16

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